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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|----------------------|
| 10/627,521 | 07/25/2003 | Hisashi Kayukawa | 600791-5US (ZUS03-006TAE) | 2870 |
| 570 | 7590 | 10/19/2005 | EXAMINER | |
| AKIN GUMP STRAUSS HAUER & FELD L.L.P. ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103 | | | | RODRIGUEZ, WILLIAM H |
| | | ART UNIT | | PAPER NUMBER |
| | | 3746 | | |

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/627,521 | KAYUKAWA ET AL. | |
| | Examiner | Art Unit | |
| | William H. Rodriguez | 3746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-3,5-7,9-11,13-15,17,18 and 23-26 is/are rejected.
- 7) Claim(s) 4,8,12,16,19-22 and 27-30 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/7/03</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. **Figure 16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.**

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 25-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "the pump" in line 9. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

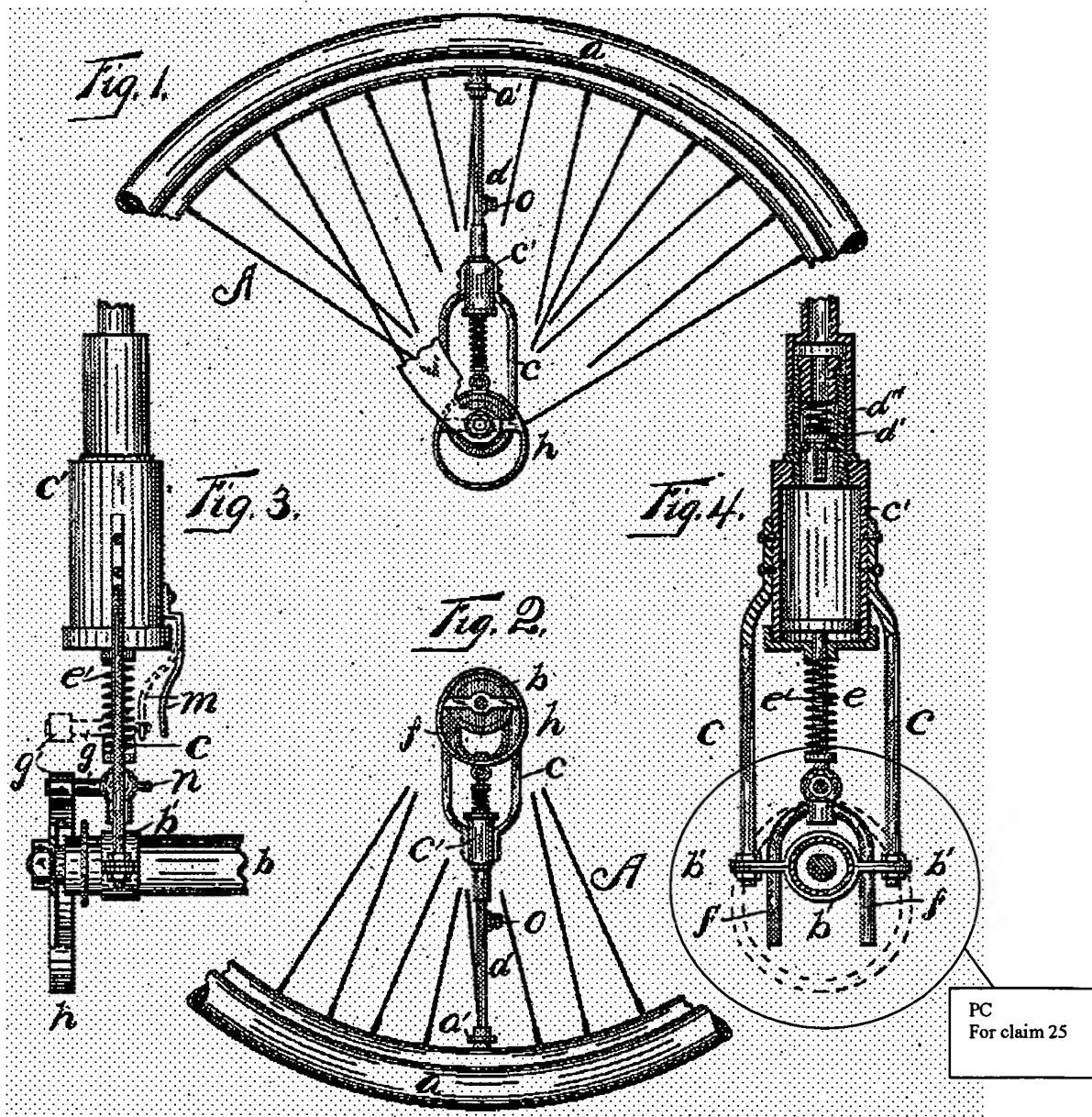
Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5-7, 9-11, 13-15, 17, 18 and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Crandall (US 652,997).



With respect to claim 1, Crandall teaches a tire pressure holding system for a vehicle having at least a wheel and a tire mounted around the wheel, the tire having an interior, the system comprising: a pump provided in a center of the wheel for discharging compressed air in

synchronization with revolution of the wheel, the pump including a discharge section from which the compressed air is discharged; a conduit d connected to the interior of the tire and the discharge section of the pump; a check valve d' provided in the conduit for preventing the air in the interior of the tire from flowing to the pump side; and a release valve O provided in the conduit for releasing the compressed air from the pump outside when an internal pressure is at or above a predetermined value in a section of the interior of the conduit between the check valve and the pump. See particularly **Figure 4**; column 1 lines 43-46; and column 2 lines 73-75.

With respect to claims 2 and 3, **Crandall** teaches that the vehicle comprises a body and an axle fixed to the body, and the pump includes a rotary block h fixed to the wheel and a driving mechanism connected between the axle of the vehicle and the rotary block, and the driving mechanism is actuated by relative rotation between the axle and the rotary block, thereby producing compressed air. See column 2 lines 55-67.

With respect to claims 5-7, **Crandall** teaches that the check valve d' and the release valve O are linked with each other so that when either one of the check valve and the release valve is opened, the other is closed. See column 1 lines 43-46; and column 2 lines 73-75.

With respect to claims 9-11 and 13-15, **Crandall** teaches that the conduit d includes an outlet of the compressed air formed in the pump, a stem a' fixed to an outer circumferential edge of the wheel and having a space capable of communicating with the interior of the tire, and a pipe connecting each of the outlet and the stem to the other, and the check valve d' is fixed to the stem thereby to serve as a tire valve unit. See particularly **Figures 1, 4**.

With respect to claim 17, **Crandall** teaches that the release valve O is fixed to the pump. See particularly **Figure 4**

With respect to claim 18, **Crandall** teaches that the release valve O is fixed to the tire valve unit. See particularly **Figure 4**

With respect to claim 23, **Crandall** teaches a tired wheel comprising a tire pressure holding system for a vehicle having at least a wheel and a tire mounted around the wheel, the tire having an interior, the system comprising: pump provided in a center of the wheel for discharging compressed air in synchronization with rotation of the wheel, the pump including a discharge section from which the compressed air is discharged; a conduit d connecting between the interior of the tire and the discharge section of the pump; a check valve d' provided in the conduit for preventing the air in the interior of the tire from flowing to the pump side; and a release valve O provided in the conduit for releasing the compressed air from the pump into an outside when an internal pressure at or above a predetermined value in a section of the interior of the conduit between the check valve and the pump. See particularly **Figure 4**; column 1 lines 43-46; and column 2 lines 73-75.

With respect to claim 24, **Crandall** teaches a vehicle comprising a tire pressure holding system for a vehicle having at least a wheel and a tire mounted around the wheel, the tire having an interior, the system comprising; a pump provided in a center the wheel for discharging compressed air in synchronization with revolution of the wheel, the pump including a discharge section from which the compressed air is discharged; a conduit d connecting between the interior of the tire and the discharge section of the pump; a check valve d' provided in the conduit for preventing the air in the interior of the tire from flowing to the pump side; and a release valve O provided in the conduit for releasing the compressed air from the pump into an outside when an internal pressure is at or above a predetermined value in a section of the interior of the conduit

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between the check valve and the pump. See particularly **Figure 4**; column 1 lines 43-46; and column 2 lines 73-75.

With respect to claim 25, **Crandall** teaches a tire valve unit fixed to an outer edge of a wheel having tire fitted around the wheel, the unit comprising; a stem d having a space capable of communicating with the interior of the tire; a check valve d' fixed in the stem and being capable of supplying air into the tire, the check valve further preventing the air from leaking outside; a pump connector PC (see Figure 4 above) provided in a central portion of the wheel and connected via a pipe e to a pump discharging compressed air in synchronization with revolution of the wheel, so that the compressed air is introduced into the stem; and a release valve O releasing the compressed air from the pump into an outside when an internal pressure at or above a predetermined value in a section of the interior of the stem nearer to the pump than the check valve .

With respect to claim 26, **Crandall** teaches that the check valve d' and the release valve O are linked with each other so that when either one of the check valve and the release valve is opened, the other is closed. See column 1 lines 43-46; and column 2 lines 73-75.

Allowable Subject Matter

6. Claims 4, 8, 12, 16, 19-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. Claims 27-30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

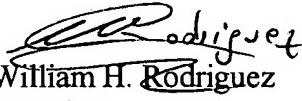
Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodriguez whose telephone number is 571-272-4831.

The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William H. Rodriguez 10/13/15
Examiner
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